

TEXT OF THE FIRST OFFICE ACTION

APPL. NO.: 2003801100350

The application relates to a method and system for recovering from hand-off fail for use in CDMA2000 1X EV-DO system. Upon examination, opinions are given as follows.

1. Claims 1, 2, 4-9 and 11-12 do not conform to Article 22, paragraph 3 of the Chinese Patent Law.

Claim 1 seeks to protect a multimedia mobile communication system for recovering an EV-DO system from hand-off fail. D1 (US2002/0067707A1) discloses a 1xEV-DO wireless communication system for hand-off, and specifically discloses the following technical features (see paragraphs 0017~0058 of the Description and Figs. 1~2): the system comprising a hybrid mobile station capable of performing communication in both 1xRTT and 1xEV-DO systems to transmit and receive voice and data signals, wherein the connection route of the mobile station is updated when the 1xEV-DO system provides a service to the mobile station, and a hand-off signal is transmitted to the mobile station when a hand-off is performed; 1xRTT and 1xEV-DO wireless transceivers for respectively transmitting/receiving voice or packet data to/from the hybrid mobile station; a 1xRTT controller for controlling a transmission of the 1xRTT transceiver; a MSC for receiving hand-off control information, receiving hand-off request from the hybrid mobile station, and providing hand-off route; a 1xEV-DO access network controller ANC connected to a packet control function module PCF to transmit/receive data to/from the 1xEV-DO; the packet control function module PCF of the 1xEV-DO for controlling transmission and reception of the packet data of the transceiver, receiving a route update signal from the mobile station when providing a service thereto, and transmitting a traffic channel assignment signal to the mobile station in response to the route update signal. The mobile station transmits a response signal, so that the hand-off is performed.

Claim 1 differs from D1 in that if a response signal is not received from the mobile station when a traffic channel assignment signal is transmitted to the mobile station, the traffic channel assignment signal will be re-transmitted to the mobile station. On the basis of the above distinguishing technical feature, it is determined that the technical problem actually to be solved in present invention is: how to further perform a reliable communication when the signal is not correctly received.

D2 (CN1341308A, family publication No. WO0044123A1) discloses that (see claim 1) data is transmitted to a receiving entity during data transmission, and if no response is received from the receiving entity, the data will be re-transmitted. It is clear that the distinguishing technical feature has been disclosed in D2, and plays the same role in

D2 as in claim 1, both for ensuring a reliable communication.

Thus it is obvious for persons skilled in the art to obtain the claimed technical solution on the basis of D1 and in combination with D2. Therefore, claim 1 does not have a prominent substantive feature, or represent a notable progress, and hence not possess inventiveness.

Claim 2 refers to claim 1 and makes further definition thereto. D1 discloses that (see paragraphs 0017~0058 of the Description and Figs. 1~2): the hand-off signal transmitted to the mobile station from the 1xEV-DO system includes a traffic channel assignment signal about a neighbor base station and an acknowledge signal for a reverse traffic channel. It is clear that the additional technical features of claim 2 have been disclosed in D1. Therefore, when claim 1 as referred to has no inventiveness, claim 2 does not possess inventiveness.

Claim 4 refers to claim 1 and makes further definition thereto. D1 discloses that (see paragraphs 0017~0058 of the Description) the hybrid communication system is checked periodically for a suitable communication mode, and a switching is carried out. It is clear that the additional technical features of claim 4 have been disclosed in D1. Therefore, when claim 1 as referred to has no inventiveness, claim 4 does not possess inventiveness.

Claim 5 refers to claim 1 and makes further definition thereto. D1 discloses that (see paragraphs 0004~0008 of the Description) the system performs multiple access assignment with the methods of TDMA and CDMA. Moreover, when a great amount of data is transmitted in case of a forward link and a reverse link, using the methods of TDMA and CDMA respectively is common technical means employed by persons skilled in the art. Therefore, when claim 1 as referred to has no inventiveness, claim 5 does not possess inventiveness.

Claim 6 seeks to protect a method for recovering an EV-DO system from hand-off fail in a multimedia mobile communication system. D1 discloses a hand-off method for a 1xEV-DO wireless communication system, and specifically discloses the following technical features (see paragraphs 0017~0058 of the Description and Figs. 1~2): a hybrid mobile station transmits and receives voice and data signals in both 1xRTT and 1xEV-DO systems, the hybrid mobile station transmits a hand-off route update signal to the 1xEV-DO system; the 1xEV-DO system transmits a hand-off signal to the hybrid mobile station, to which a traffic channel assignment signal is transmitted; the hybrid mobile station transmits a response signal, so that the hand-off is performed.

Claim 6 differs from D1 in: determining whether or not a response signal is received from the mobile station when a traffic channel assignment signal is transmitted to the mobile station, and if the response signal is not received from the mobile station, the

traffic channel assignment signal will be re-transmitted to the mobile station. On the basis of the above distinguishing technical feature, it is determined that the technical problem actually to be solved in present invention is: how to further perform a reliable communication when the signal is not correctly received.

D2 discloses that (see claim 1) data is transmitted to a receiving entity during data transmission, and if no response is received from the receiving entity, the data will be re-transmitted. It is clear that the distinguishing technical feature has been disclosed in D2, and plays the same role in D2 as in claim 6, both for ensuring a reliable communication.

Thus it is obvious for persons skilled in the art to obtain the claimed technical solution on the basis of D1 and in combination with D2. Therefore, claim 6 does not have a prominent substantive feature, or represent a notable progress, and hence not possess inventiveness.

Claim 7 refers to claim 6 and makes further definition thereto. D1 discloses that (see paragraphs 0009~0010 and 0017~0058 of the Description): the hybrid mobile station can be in the 1xRTT and 1xEV-DO systems simultaneously for detecting the systems, so as to enter different communication modes for voice or packet traffics. It is clear that the additional technical features have been disclosed in D1. Therefore, when claim 6 has no inventiveness, claim 7 does not possess inventiveness.

Claim 8 refers to claim 6 and makes further definition thereto. D1 discloses that (see paragraphs 0017~0058 of the Description and Figs. 1~2) the hand-off signal transmitted to the mobile station from the 1xEV-DO system includes a traffic channel assignment signal about a neighbor base station and an acknowledge signal for a reverse traffic channel. It is clear that the additional technical features of claim 8 have been disclosed in D1. Therefore, when claim 6 as referred to has no inventiveness, claim 8 does not possess inventiveness.

Claim 9 refers to claim 6 and makes further definition thereto. D1 discloses that (see paragraphs 0017~0058 of the Description and Figs. 1~2) the mobile station transmits a response signal to the 1xEV-DO system after receiving traffic channel assignment signal, the response signal and a completion acknowledge signal are transmitted after the hand-off registration is completed. It is clear that the additional technical features of claim 9 have been disclosed in D1. Therefore, when claim 6 as referred to has no inventiveness, claim 9 does not possess inventiveness.

Claim 11 refers to claim 6 and makes further definition thereto. D1 discloses that (see paragraphs 0017~0058 of the Description) the hybrid communication system is checked periodically for a suitable communication mode, and a switching is carried out. It is clear that the additional technical features of claim 11 have been disclosed in D1. Therefore, when claim 6 as referred to has no inventiveness, claim 11 does not

possess inventiveness.

Claim 12 refers to claim 6 and makes further definition thereto. D1 discloses that (see paragraphs 0004~0008 of the Description) the system performs multiple access assignment with the methods of TDMA and CDMA. Moreover, when a great amount of data is transmitted in case of a forward link and a reverse link, using the methods of TDMA and CDMA respectively is common technical means employed by persons skilled in the art. Therefore, when claim 6 as referred to has no inventiveness, claim 12 does not possess inventiveness.

2. Claims 3 and 10 do not conform to Article 26, paragraph 4 of the Chinese Patent Law.

Claims 3 and 10 mention "re-transmitting the traffic channel assignment signal to the hybrid access terminal if a traffic channel completion signal is not transmitted to the EV-DO system from the hybrid access terminal, thereby performing the hand-off", but according to the Description (see Fig. 4), the traffic channel assignment signal is re-transmitted to the hybrid access terminal if a traffic channel completion signal is not transmitted from the hybrid access terminal to the EV-DO system, and then waiting for a response signal from the hybrid access terminal, then a reverse traffic channel ACK signal is transmitted to the hybrid access terminal, and the hand-off will not be performed until a completion signal from the hybrid access terminal is received. Thus a normal switching of the hybrid access terminal cannot be ensured if the hand-off is performed only when the traffic channel assignment signal is re-transmitted to the hybrid access terminal, as defined in claim 1. Therefore, claims 3 and 10 are not supported by the Description.

3. Claims 1, 3, 6, 9 and 10 do not conform to Rule 20, paragraph 1 of the Implementing Regulations of the Chinese Patent Law.

Claim 1 mentions "transmitting a traffic channel assignment signal to the hybrid access terminal in response to the route updating signal, ...if a response signal (L2ACK) is not transmitted thereto from the hybrid access terminal", but persons skilled in the art cannot determine whether the above two signals indicate the same signal, and the word "from" makes the sentence not fluent; in addition, the phrase "(L2ACK)" contains parentheses, which shall be avoided in claims. Thus claim 1 is unclear. Meanwhile, claims 3 and 10 also contain "(L2ACK)", thus claims 3 and 10 are unclear.

Claim 3, in line 5 and line 7, respectively mentions "traffic channel assignment signal" and "traffic assignment signal", and persons skilled in the art cannot determine whether the above two signals indicate the same signal, thus claim 3 is unclear.

Step (e) of claim 6 mentions "re-transmitting a traffic channel assignment signal", but "traffic channel assignment signal" does not appear in previous steps, thus persons

skilled in the art do not know how to re-transmit the signal. In addition, persons skilled in the art also cannot determine the relationships among the "route update signal", "hand-off signal" and "traffic channel assignment signal". Thus claim 6 is unclear.

Claim 9 mentions "...a traffic channel completion signal transmitted to the EV-DO system in response to an acknowledge signal for a reverse traffic channel...", but this sentence is not fluent, and persons skilled in the art cannot determine what signal is transmitted in response to what signal, and where the signal is transmitted. Thus claim 9 is unclear.

In view of the above reasons, present application cannot be granted a patent right as per the present text. The applicant shall make response within the time limit specified in this Office Action, by explaining seriatim all the problems occurred herein, and amending the patent application documents in light of the opinions given herein. Particularly, the independent claims and the corresponding dependent claims shall be amended based on the reference documents as cited in this Office Action, and convincing reasons testifying to novelty and inventiveness of the newly amended independent claims over the reference documents and the prior art before the application date mentioned in the initial Description shall be demonstrated in the observations. In addition, the Description shall be amended adaptively based on the amended claims. The amendments to the application document shall conform to Article 33 of the Chinese Patent Law and not go beyond the scope of disclosure contained in the initial Description and claims.

Examiner: Yujing WANG
Code: 941D

THE STATE INTELLECTUAL PROPERTY OFFICE OF CHINA

Address: Receiving Department of The State Intellectual Property Office (SIPO)
6 Xitucheng Road, Haidian, Beijing

Postal Code: 100088

Applicant	SK TELECOM CO.,LTD.	Date of Issue:
Patent Agent	Beijing Sanyou Intellectual Property Agency Ltd.	August 22, 2008
Filing number of Patent Application	200380110035.0	
Title of Invention	Method and system for recovering from hand-off fail for use in CDMA 2000 1X EV-DO system	

**FIRST NOTIFICATION OF OFFICE ACTION
(PCT APPLICATION ENTRY INTO THE NATIONAL PHASE)**

1. ☒ The examiner has made the examination on the above-cited patent application in accordance with the provision in paragraph 1, Article 35 of the Chinese Patent Law.
☐ The SIPO uses its own discretion to make a substantive examination for the above-cited patent application on the basis of the provision in paragraph 2, Article 35 of the Chinese Patent Law.

2. ☒ The applicant designated the filing date of

December 31, 2002 in the Patent Office of KR as the priority date;
 _____ in the Patent Office of _____ as the priority date;
 _____ in the Patent Office of _____ as the priority date;

3. ☐ The applicant submitted the amendment on _____ and _____.
 Upon examination, _____ submitted by the application on _____ is/are found to be not in conformity with the provision of Rule 51 of the Implementing Regulations of the Chinese Patent Law.

☐ _____

4. ☒ Examination is made based on Chinese translation of PCT appln. as originally filed.

☐ Examination is made based on the following documents:

☐ the description, pages _____, as indicated in Chinese translation of PCT appln. as originally filed;
 pages _____, as indicated in the Chinese translation of the annexes to IPE Report;
 pages _____, as indicated in the amendment under Article 28 or 41 of PCT;
 pages _____, as indicated in the amendment under Rule 51 of the Implementing Regulations of the PRC Patent Law.
 pages _____, as per the amended documents submitted on _____.

☐ the claims, claims _____, as indicated in Chinese translation of PCT appln. as originally filed;
 claims _____, as indicated in Chinese translation of the amendment under Article 19 of PCT;
 claims _____, as indicated in the Chinese translation of the annexes to IPE Report;
 claims _____, as indicated in the amendment under Article 28 or 41 of PCT;
 claims _____, as indicated in the amendment under Rule 51 of the Implementing Regulations of the PRC Patent Law.
 claims _____, as per the amended documents submitted

- ☐ the drawings, pages _____, on _____, as indicated in Chinese translation of PCT appln. as originally filed;
 pages _____, as indicated in the Chinese translation of the annexes to IPE Report;
 pages _____, as indicated in the amendment under Article 28 or 41 of PCT;
 pages _____, as indicated in the amendment under Rule 51 of the Implementing Regulations of the PRC Patent Law.
 pages _____, as per the amended documents submitted on _____.

- ☒ The following reference materials have been cited in this notification (their reference numbers will be used throughout the examination procedure):

reference Number	Number or Title of Reference Material	Publication Date (or Filing Date of A Interference Patent Application)
1	US2002/0067707A1	June 6, 2002
2	CN1341308A	March 20, 2002

5. The objections after the examination:

- ☐ In regard to the description:

- ☐ The subject matter of the present application is not accepted under the Article 5 of the Chinese Patent Law.
☐ The description is not in conformity with the provision of paragraph 3, Article 26 of Chinese Patent Law.
☐ The description is not in conformity with the provision of Article 33 of Chinese Patent Law.
☐ The presentation of the description is not in conformity with the provision of Rule 18 of the Implementing Regulations of the Chinese Patent Law.

- ☒ In regard to the Claims:

- ☐ Claims _____ can not be allowed owing to lack of novelty under the provision of paragraph 2, Article 22 of Chinese Patent Law.
☒ Claims 1,2,4-9,11,12 can not be allowed owing to lack of inventiveness under the provision of paragraph 3, Article 22 of Chinese Patent Law.
☐ Claims _____ cannot be allowed owing to lack of practical applicability under the provision of paragraph 4, Article 22 of Chinese Patent Law.
☐ Claims _____ can not be allowed because they fall in the scope of the unpatentable subject matters provided by Article 25 of the Chinese Patent Law.
☒ Claims 3,10 cannot be allowed because they are not in conformity with the provision of paragraph 4, Article 26 of Chinese Patent Law.
☐ Claims _____ cannot be allowed under the provision of paragraph 1, Article 31 of Chinese Patent Law.
☐ Claims _____ cannot be allowed under the provision of Article 33 of Chinese Patent Law.
☐ Claims _____ can not be allowed because they claim an invention(s) that does not belong to the inventions defined by the provision of paragraph 1, Rule 2 of the Implementing Regulations of the Chinese Patent Law.
☐ Claims _____ cannot be allowed under the provision of paragraph 1, Rule 13 of the Implementing Regulations of the Chinese Patent Law.
☒ Claims 1,3,6,9,10 can not be allowed under the provision of Rules 20 of the Implementing Regulations of the Chinese Patent Law.
☐ Claims _____ cannot be allowed under the provision of Rules 21 of the Implementing Regulations of the Chinese Patent Law.
☐ Claims _____ cannot be allowed under the provision of Rules 22 of the Implementing Regulations of the Chinese Patent Law.

- ☐ Claims _____ cannot be allowed under the provision of Rules 23 of the Implementing Regulations of the Chinese Patent Law.
- ☐ _____
- ☐ Divisional application is not in conformity with the provision of paragraph 1, rule 43 of the Implementing Regulations of the Chinese Patent Law.

The specific explanation of the objections is given in the attachment sheet

6. According to the above objections, the examiner holds that
- ☐ the applicant should amend the application documents based on the requirement specified in the Attachment Sheet.
 - ☒ the applicant should state the reason why the application can be accepted and amend the part that is indicated not to be in conformity with the requirement, otherwise the application will be rejected.
 - ☐ No subject matter in the application is patentable, said application will be rejected if the applicant does not make a statement or the presented statement is not convincing.
 - ☐ _____

7. The applicant's attention is drawn to the fact that

- (1) in accordance with the provision of Article 37 of the Chinese Patent Law, the applicant shall submit the observations within **FOUR** months from the date of receiving this notification. If the applicant, without any justified reason, fails to reply within the time limit, the application shall be deemed to have been withdrawn.
 - (2) the amendment that shall be in conformity with the provision of Article 33 of the Chinese Patent Law. The amended text shall be furnished in duplicate. The formality of the amendment should be in conformity with the relevant provisions of the Guideline for Examination.
 - (3) any response and/or amended documents must be furnished, by mail or by hand, to the Receiving Department of the SIPO. Any documents that are not furnished to the Receiving Department do not have legal effect.
 - (4) the applicant and/or his attorney should not go to the PRC Patent Office to meet the examiner if no appointment is made.
8. The text of the notification embraces 4 page(s), along with the enclosures herein:
☒ 2 copies of the Cited references are enclosed in pages of 32.



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中华人民共和国国家知识产权局

P00125203

100083 北京市海淀区王庄路1号清华同方科技大厦B座25层 中科专利商标代理有限责任公司 王玮	发文日
申请号: 2003801100350	
申请人: SK 电信有限公社 发明名称: CDMA2000 1X EV-DO 系统中使用的从越区切换失败恢复的方法和系统	



第一次审查意见通知书

(进入国家阶段的 PCT 申请)

1. ☒ 应申请人提出的实审请求, 根据专利法第 35 条第 1 款的规定, 国家知识产权局对上述发明专利申请进行实质审查。
☐ 根据专利法第 35 条第 2 款的规定, 国家知识产权局专利局决定自行对上述发明专利申请进行审查。
 2. ☒ 申请人要求以其在:

KR 专利局的申请日 2002 年 12 月 31 日为优先权日,
 专利局的申请日 年 月 日为优先权日,
 专利局的申请日 年 月 日为优先权日。

3. ☐ 申请人于 年 月 日和 年 月 日以及 年 月 日提交了修改文件。
 经审查, 申请人于 年 月 日提交的 不符合专利法实施细则第 51 条第 1 款的规定。

- ☐
 4. ☒ 审查是针对原始提交的国际申请的中文译文进行的。

☐ 审查是针对下述申请文件进行的:

- ☐ 说明书 第 页, 按照进入中国国家阶段时提交的国际申请文件的中文文本;
 第 页, 按照专利性国际初步报告附件的中文文本;
 第 页, 按照依据专利合作条约第 28 条或 41 条规定所提交的修改文件;
 第 页, 按照依据专利法实施细则第 51 条第 1 款规定所提交的修改文件;
 第 页, 按照 年 月 日所提交的修改文件。

- ☐
☐ 权利要求 第 项, 按照进入中国国家阶段时提交的国际申请文件的中文文本;
 第 项, 按照依据专利合作条约第 19 条规定所提交的修改文件的中文文本;
 第 项, 按照专利性国际初步报告附件的中文文本;
 第 项, 按照依据专利合作条约第 28 条或 41 条规定所提交的修改文件;
 第 项, 按照依据专利法实施细则第 51 条第 1 款规定所提交的修改文件;
 第 项, 按照 年 月 日所提交的修改文件。

- ☐
☐ 附图 第 页, 按照进入中国国家阶段时提交的国际申请文件的中文文本;
 第 页, 按照专利性国际初步报告附件的中文文本;
 第 页, 按照依据专利合作条约第 28 条或 41 条规定所提交的修改文件;
 第 页, 按照依据专利法实施细则第 51 条第 1 款规定所提交的修改文件;
 第 页, 按照 年 月 日所提交的修改文件。





☒ 本通知书引用下述对比文件(其编号在今后的审查过程中继续沿用):

编号	文件名或名称	公开日期 (或抵触申请的申请日)
1	US2002/0067707A1	2002-6-6
2	CN1341308A	2002-3-20

5. 审查的结论性意见:

☐ 关于说明书:

- ☐ 申请的内容属于专利法第 5 条规定的不授予专利权的范围。
- ☐ 说明书不符合专利法第 26 条第 3 款的规定。
- ☐ 说明书不符合专利法第 33 条的规定。
- ☐ 说明书的撰写不符合专利法实施细则第 18 条的规定。

☒ 关于权利要求书:

- ☐ 权利要求 不具备专利法第 22 条第 2 款规定的新颖性。
- ☒ 权利要求 1, 2, 4-9, 11, 12 不具备专利法第 22 条第 3 款规定的创造性。
- ☐ 权利要求 不具备专利法第 22 条第 4 款规定的实用性。
- ☐ 权利要求 属于专利法第 25 条规定的不授予专利权的范围。
- ☒ 权利要求 3, 10 不符合专利法第 26 条第 4 款的规定。
- ☐ 权利要求 不符合专利法第 31 条第 1 款的规定。
- ☐ 权利要求 不符合专利法第 33 条的规定。
- ☐ 权利要求 不符合专利法实施细则第 2 条第 1 款的规定。
- ☐ 权利要求 不符合专利法实施细则第 13 条第 1 款的规定。
- ☒ 权利要求 1, 3, 6, 9, 10 不符合专利法实施细则第 20 条的规定。
- ☐ 权利要求 不符合专利法实施细则第 21 条的规定。
- ☐ 权利要求 不符合专利法实施细则第 22 条的规定。
- ☐ 权利要求 不符合专利法实施细则第 23 条的规定。

☐ 分案的申请不符合专利法实施细则第 43 条第 1 款的规定。

上述结论性意见的具体分析见本通知书的正文部分。

6. 基于上述结论性意见, 审查员认为:

- ☐ 申请人应按照通知书正文部分提出的要求, 对申请文件进行修改。
- ☒ 申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由, 并对通知书正文部分中指出的不符合规定之处进行修改, 否则将不能授予专利权。
- ☐ 专利申请中没有可以被授予专利权的实质性内容, 如果申请人没有陈述理由或者陈述理由不充分, 其申请将被驳回。

7. 申请人应注意下述事项:

- (1) 根据专利法第 37 条的规定, 申请人应在收到本通知书之日起的肆个月内陈述意见, 如果申请人无正当理由逾期不答复, 其申请将被视为撤回。
- (2) 申请人对其申请的修改应符合专利法第 33 条的规定, 修改文本应一式两份, 其格式应符合审查指南的有关规定。
- (3) 申请人的意见陈述书和 / 或修改文本应邮寄或递交国家知识产权局专利局受理处, 凡未邮寄或递交给受理处的文件不具备法律效力。
- (4) 未经预约, 申请人和 / 或代理人不得前来国家知识产权局专利局与审查员举行会晤。

8. 本通知书正文部分共有 4 页, 并附有下列附件:

☒ 引用的对比文件的复印件共 2 份 32 页。



审查员 王玉娟 (941D)

审查部门

审查协作中心

2008 年 8 月 7 日

21302
2008.7



回函请寄: 100088 北京市海淀区衙门桥西土城路 6 号 国家知识产权局专利局受理处收
(注: 凡寄给审查员个人的信函不具有法律效力)